

BIAS GENERATION HAVING ADJUSTABLE RANGE AND RESOLUTION
THROUGH METAL PROGRAMMING

ABSTRACT OF THE INVENTION

The present invention uses metal programming to facilitate modifying a range
5 and/or resolution of a bias voltage output signal generated by a programmable bias
generator. A metal-programmable (MP) bias generator includes a MP transistor in the
bias generator. The MP transistor includes either or both of a MP pull-up transistor
and a MP pull-down transistor, each having a respective ON state resistance. A
method of modifying the bias generator includes metal programming either or both of
10 the MP pull-up transistor and the MP pull-down transistor, such that the respective
ON state resistance of the corresponding metal-programmed transistor is combined
with an effective ON state resistance of circuitry of the bias generator. The combined
ON state resistances change one or both of the range and the resolution of a set of
available magnitudes of the bias voltage output signal.

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